



App'n No.: 10/027,219  
 Applicant(s): Marc Vidal et al.  
 REVERSE TWO-HYBRID SYSTEMS

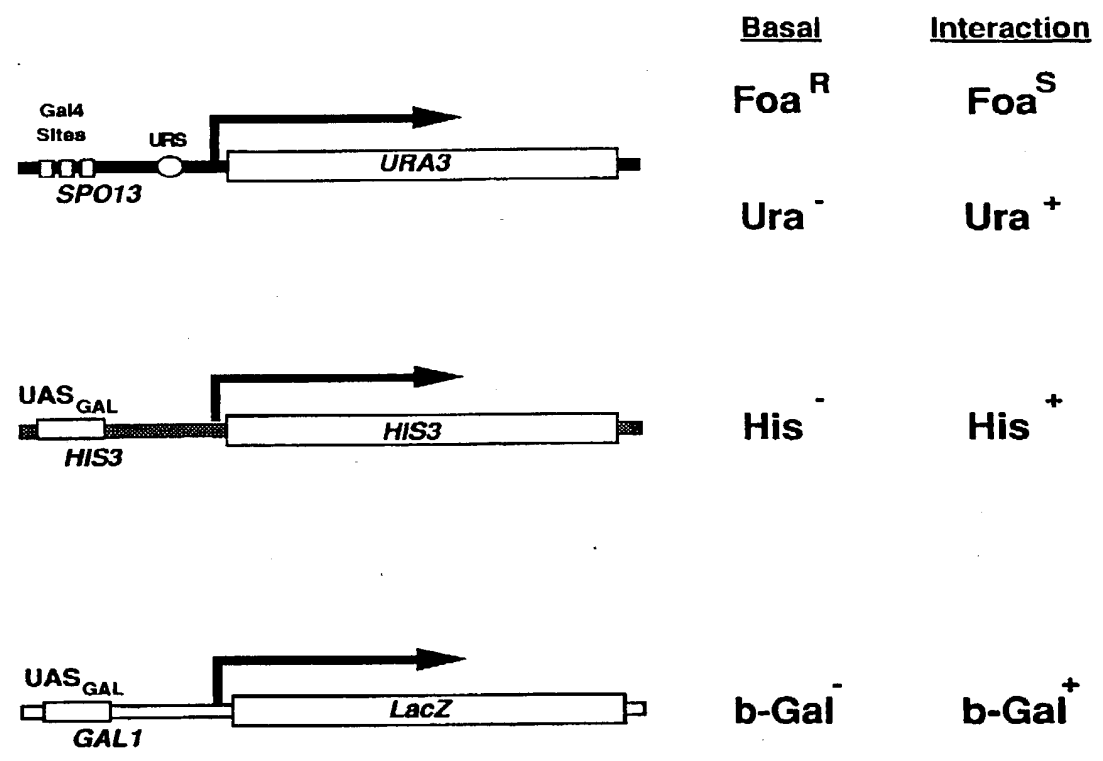


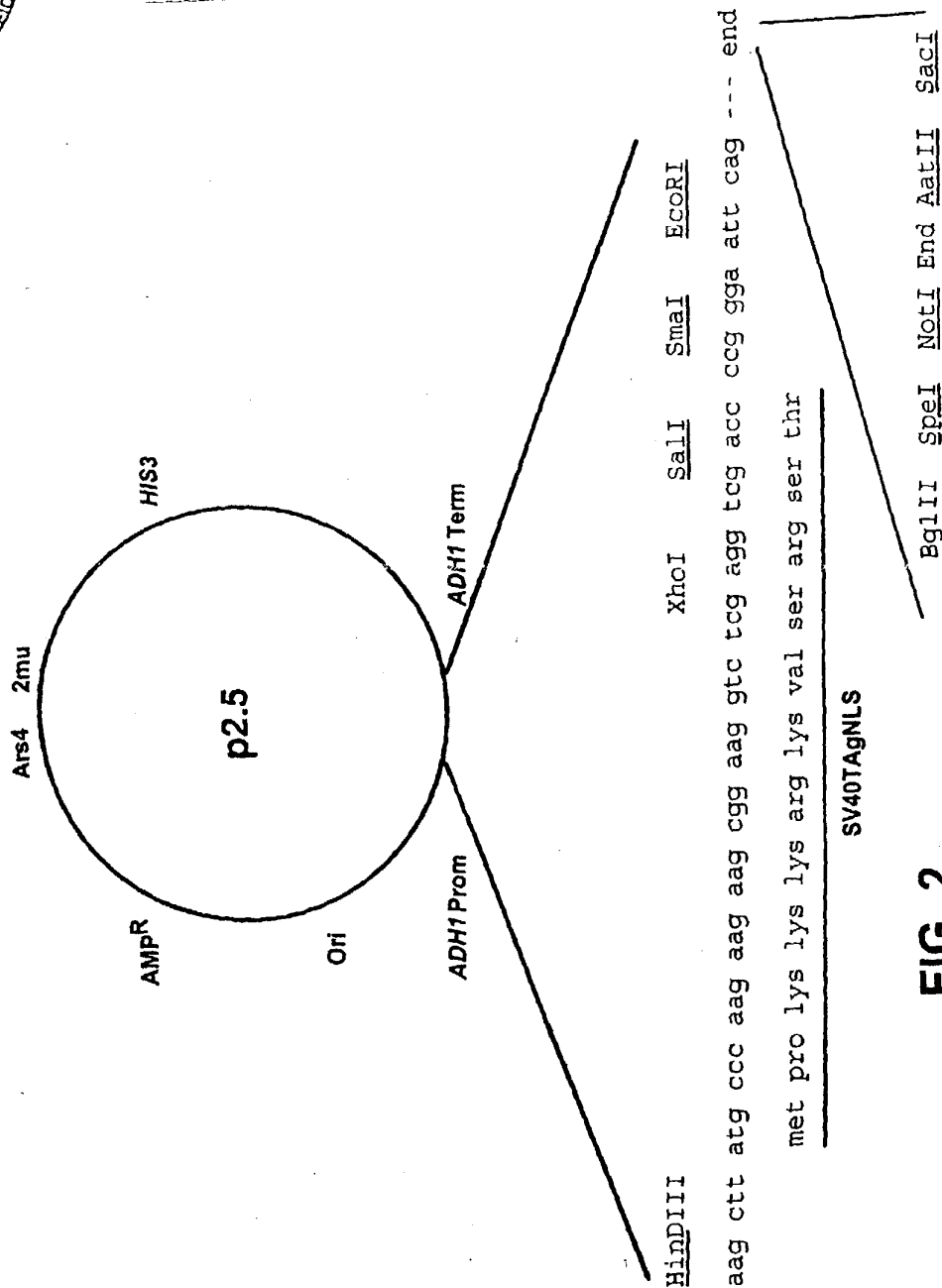
FIG. 1



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**FIG. 2**

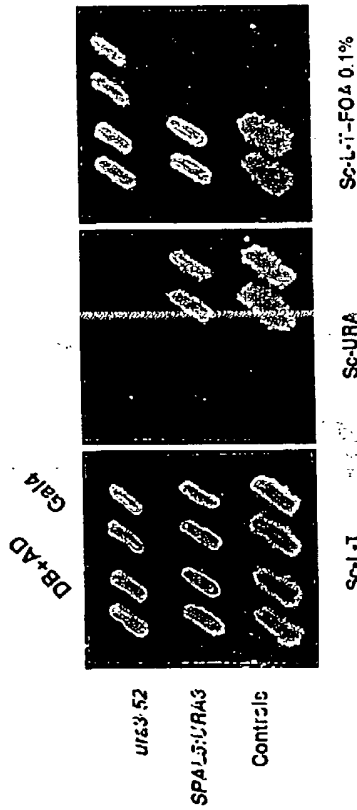


FIG. 3

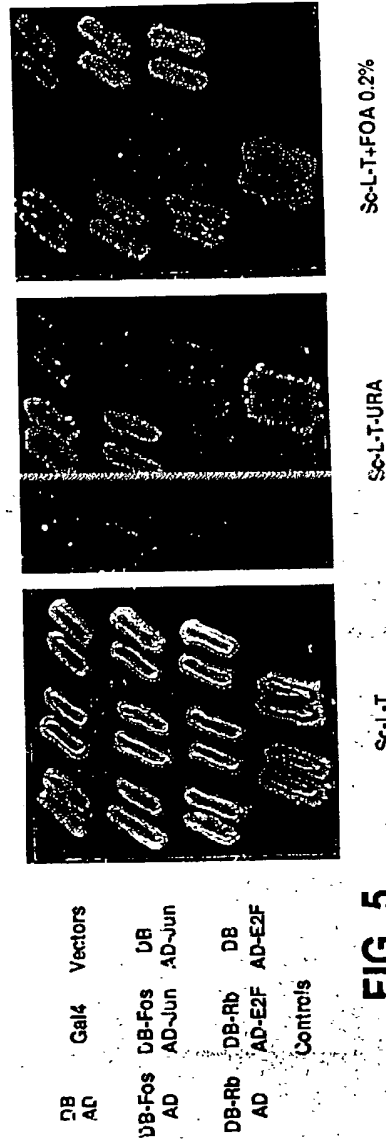


FIG. 5



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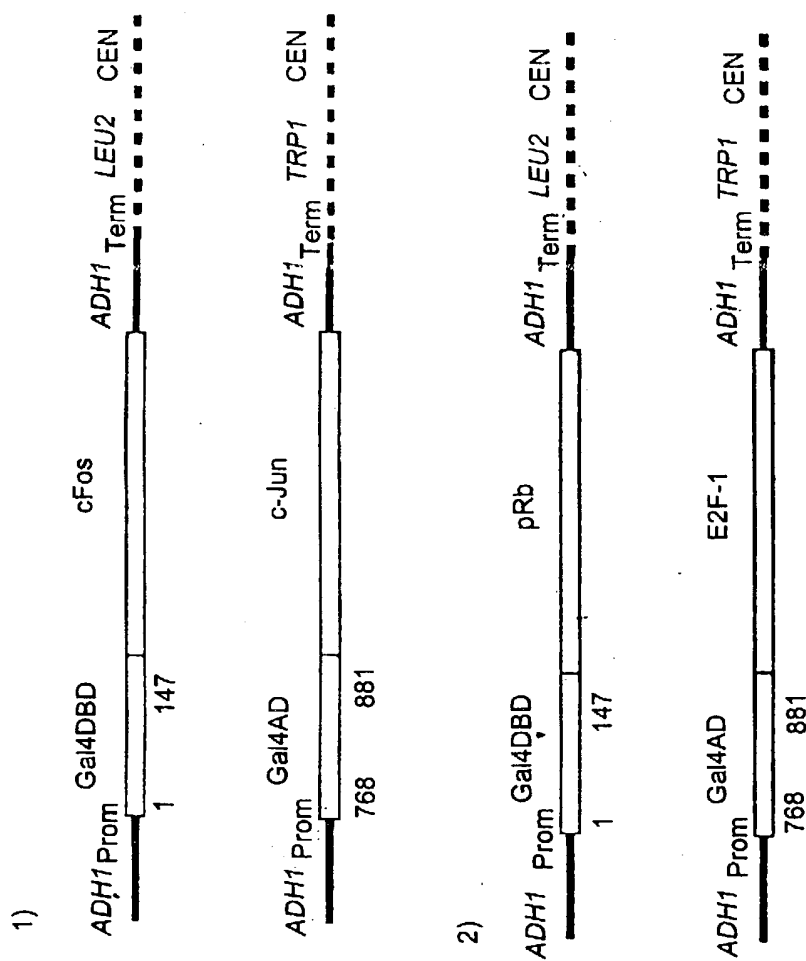


FIG. 4



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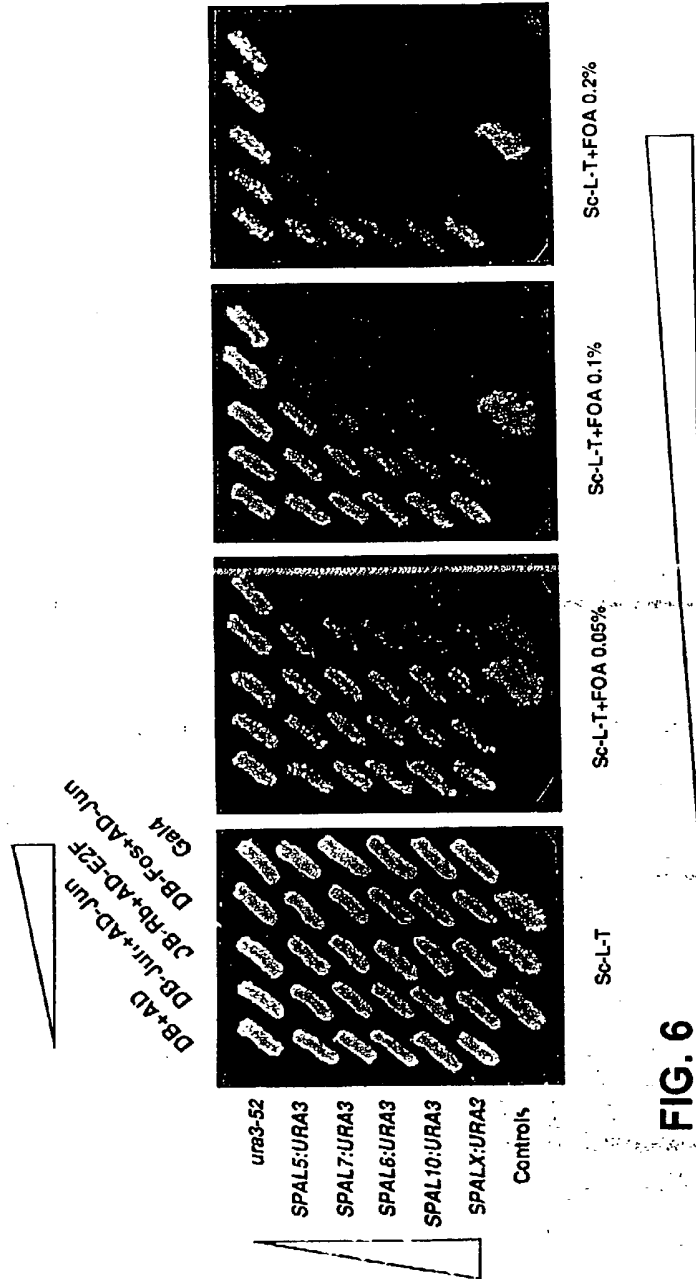


FIG. 6

**FIG. 7**

DB-AD DB-Rb+AD DB-Rb+AD-E2F DB+AD  
μ<sub>0</sub>.5 P2# p<sub>0</sub>.5 Rb#2 -E2F Controls

Sc + S-F7A (C.2%),

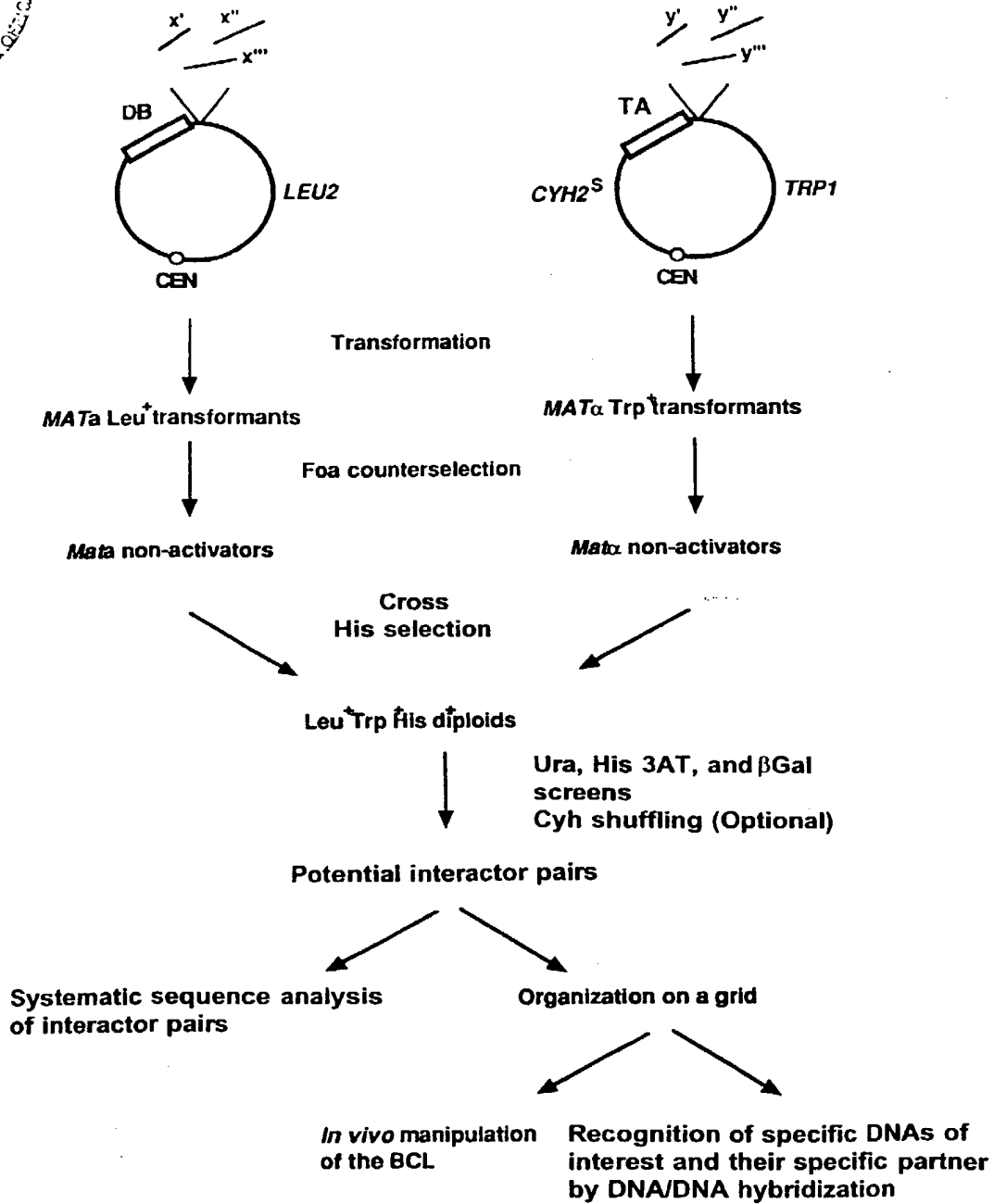
Sc

DB-AD DB-Rb+AD-E2F1 DB-Fos+AD-Jun Gal4+AD DB-Ado1+AD-dE2F

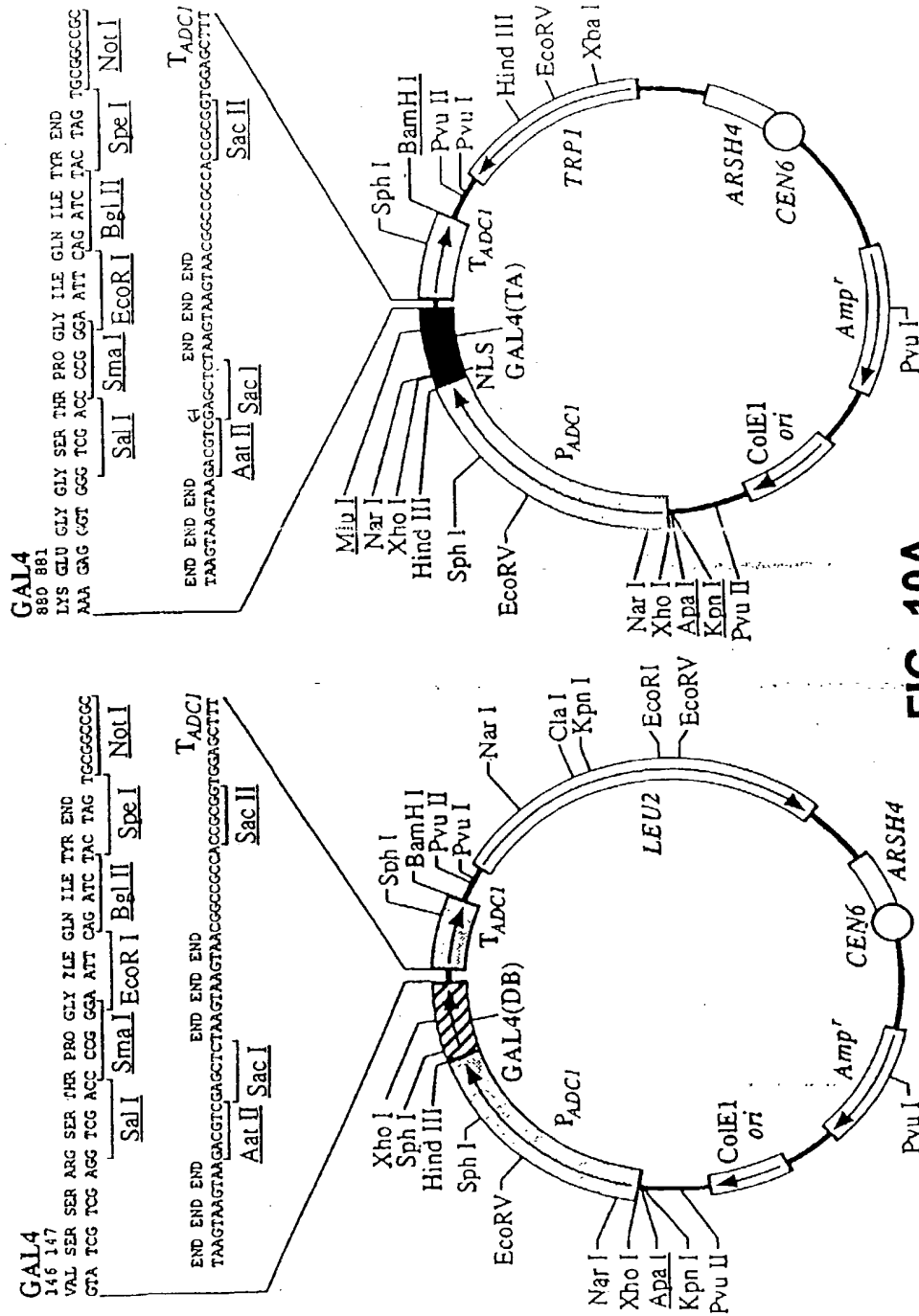
Sc-L-T Sc-URA 3AT-10mM X-GAL

**FIG. 8**

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**FIG. 9**



**FIG. 10A**





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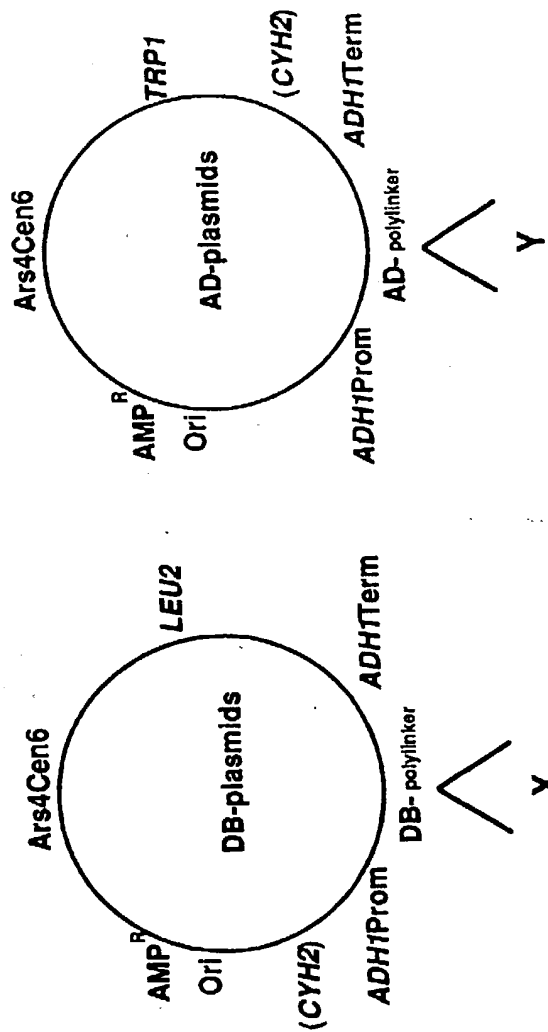


FIG. 10B



DB-X	Total	Hls+	Retested	Known Interacting	"Novel" Interacting	False positive
None	1x10 <sup>6</sup>	1	0			
p130	5x10 <sup>5</sup>	19	9	0	5 → 2	
DP1	2x10 <sup>5</sup>	7	7	6 → 2	1 → 1	
pRb	1x10 <sup>6</sup>	20	0			
p35	1x10 <sup>6</sup>	20	8	0	8 → 2	0
CDK3	1x10 <sup>6</sup>	38	16			
CDK3	1x10 <sup>6</sup>	38	16			
DCC1	3x10 <sup>6</sup>	81	23	0		
Zebu	1x10 <sup>6</sup>	81	23			

FIG. 11



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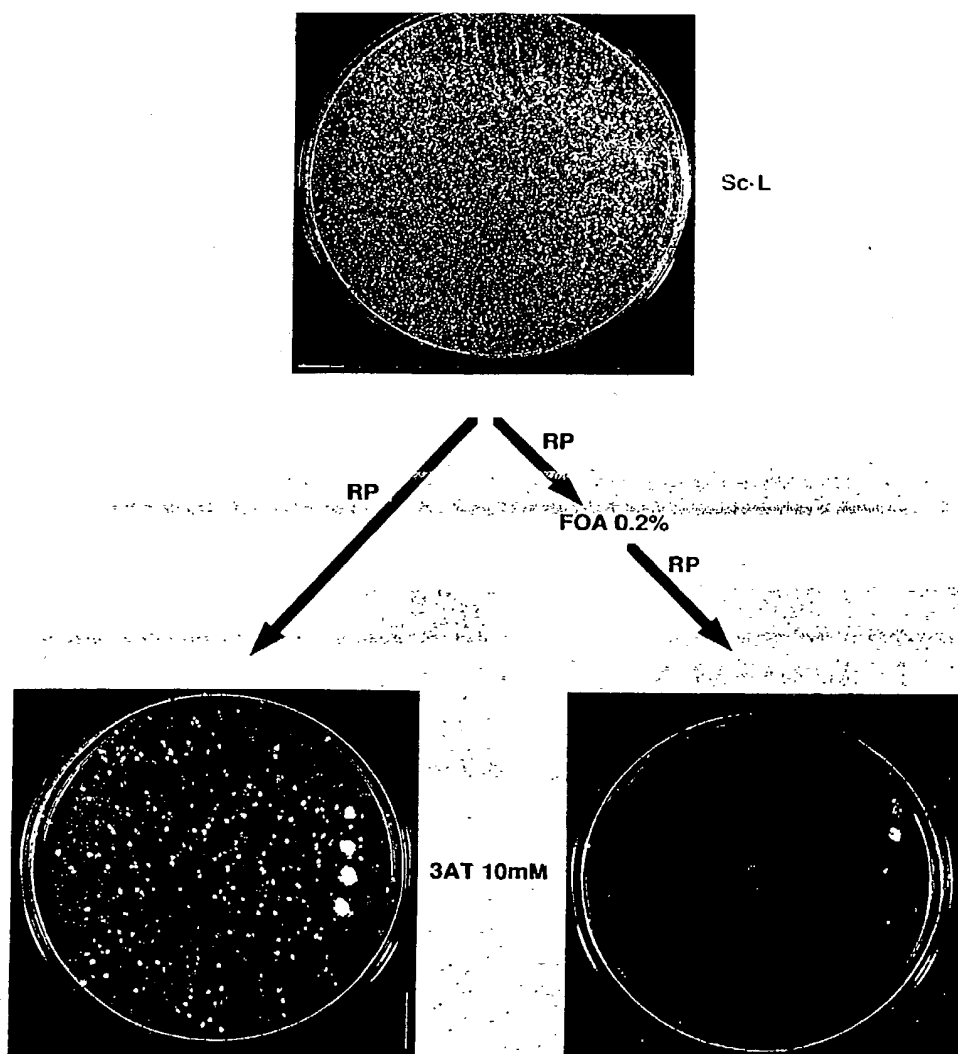
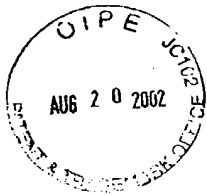


FIG. 12



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DB-X	AD-Y	AD-pRb	AD-107	AD-130	DP1	CDK2	Jun	None
None								
E2F1		2	1					
E2F2		1	1					
E2F3					2			
E2F4								
Fos							24	
Jun								
CyclinA								
p21								39
DCC1								

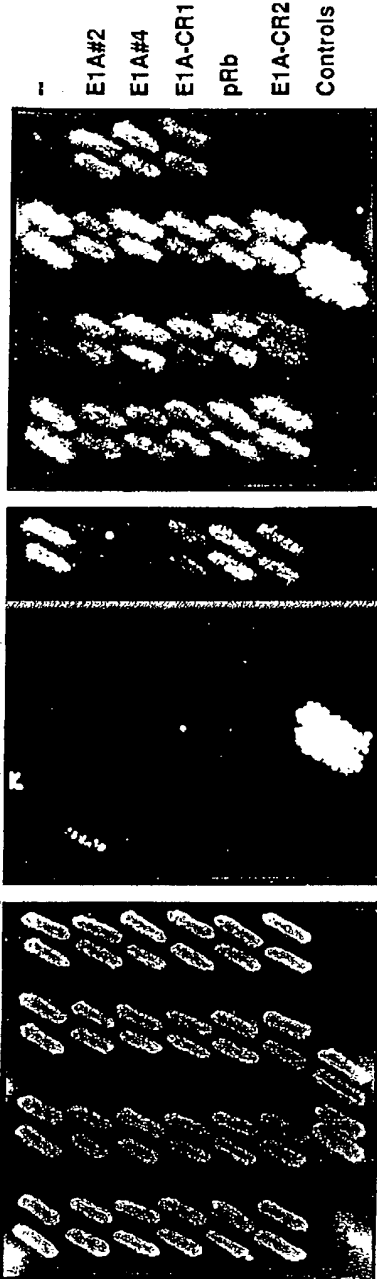
FIG. 13

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DB-Rb + AD  
 DB-Rb + AD-E2F-1  
 DB-p107 + AD  
 DB-p107 + AD-E2F-1



Sc-L-T-H+FOA 0.2%

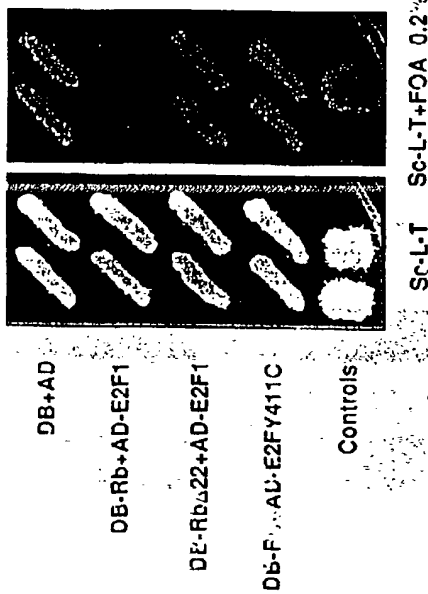
Sc-L-T-H-U

Sc-L-T-H

FIG. 14



FIG. 15



DB-DP1 +  
 AD-E2F1-20  
 AD-E2F1-21  
 AD-E2F1-22  
 AD-E2F1-32  
 AD-E2F1-34  
 AD-E2F1  
 Controls 1,2,3,4

Sc-L-T-U

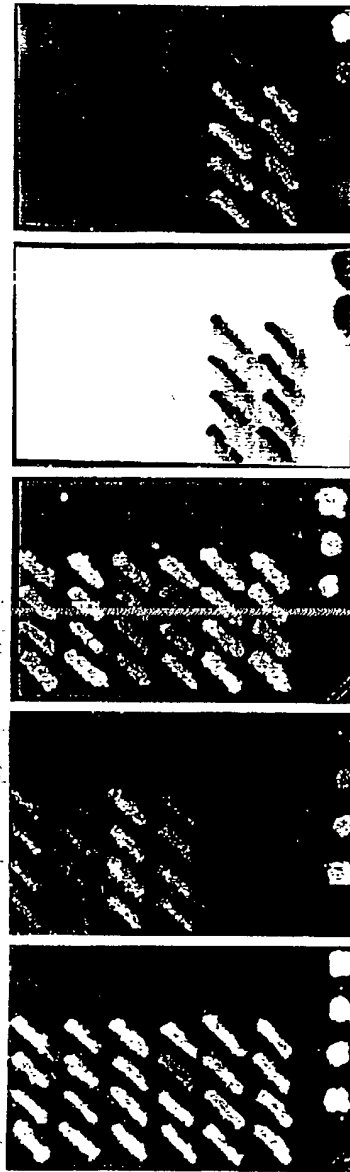
Sc-L-T+X-3al

3AT 20mM

FOA 0.1%

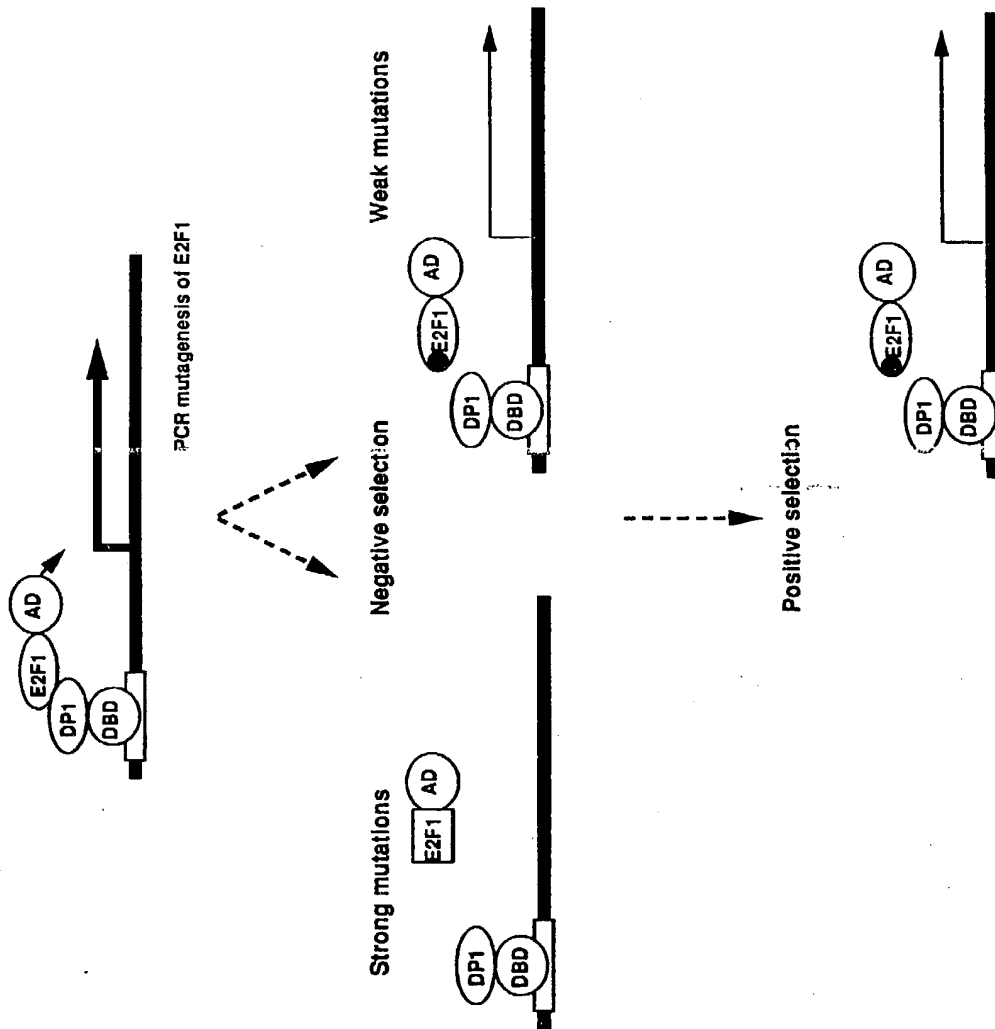
Sc-L-T

FIG. 20

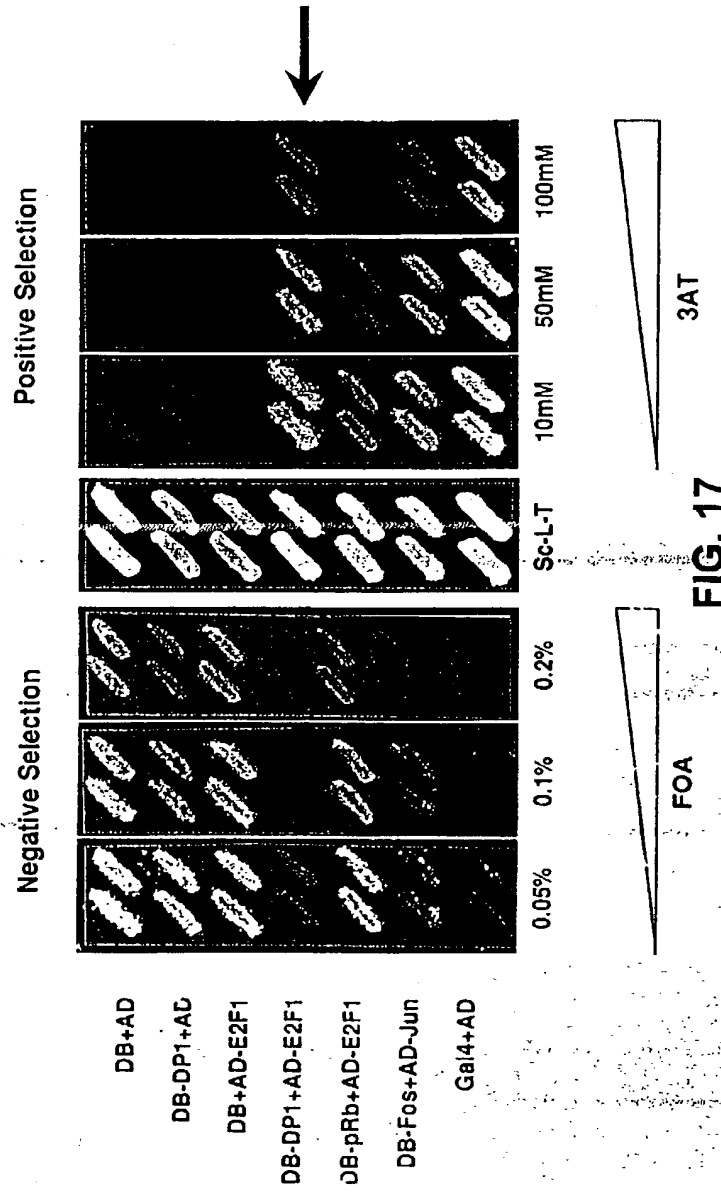


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**FIG. 16**



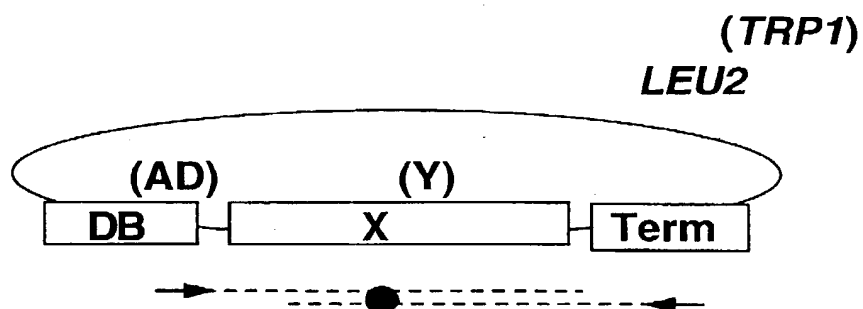


The diagram illustrates the process of gap repair in a bacterial cell. The top part shows a cell with a chromosome containing a gap (indicated by a dashed line and arrows). The bottom part shows the same cell after repair, with the gap filled by a new strand (indicated by a solid line and arrows). The text "Gap repair" is written between the two parts.

**FIG. 18A**



## In vitro mutagenic PCR reaction



## In vivo gap repair

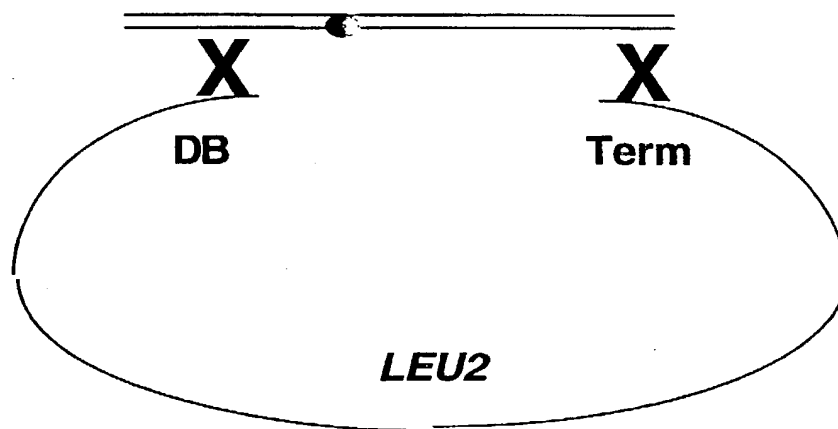


FIG. 18B

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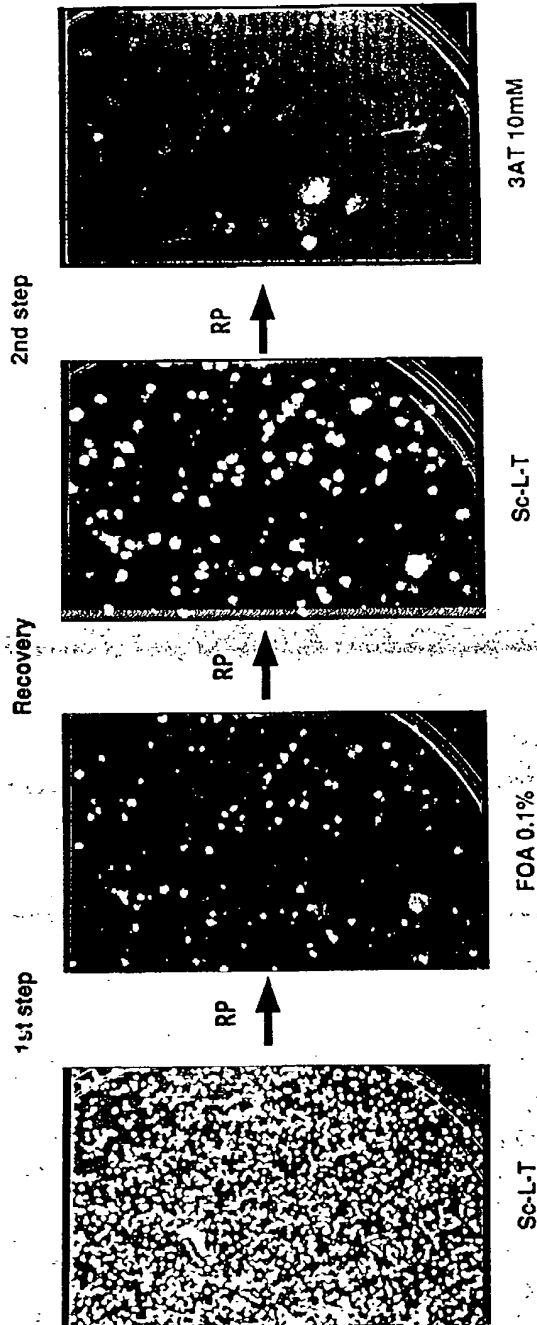


FIG 19



MARKED BOX 2

283	Q	I	N	L	K	S	H	S	S	V	H	V	L	L	L	I	N	K	301	E2F5
Q	I	H	L	K	S	S	V	S	S	E	E	V	L	L	L	V	N	K	E2F4	
Q	I	H	L	A	Q	T	T	Q	Q	V	E	V	L	L	L	C	P	E	E2F3	
Q	I	Y	L	K	Q	T	K	S	S	V	E	V	L	L	L	C	P	E	E2F2	
Q	I	S	L	K	Q	G	P	S	P	V	D	V	L	L	L	C	P	E	E2F1	
T	T	N																	E2F1-20	
																			E2F1-30	
																			E2F1-32	
																			E2F1-31	
																			E2F1-65	

FIG. 21

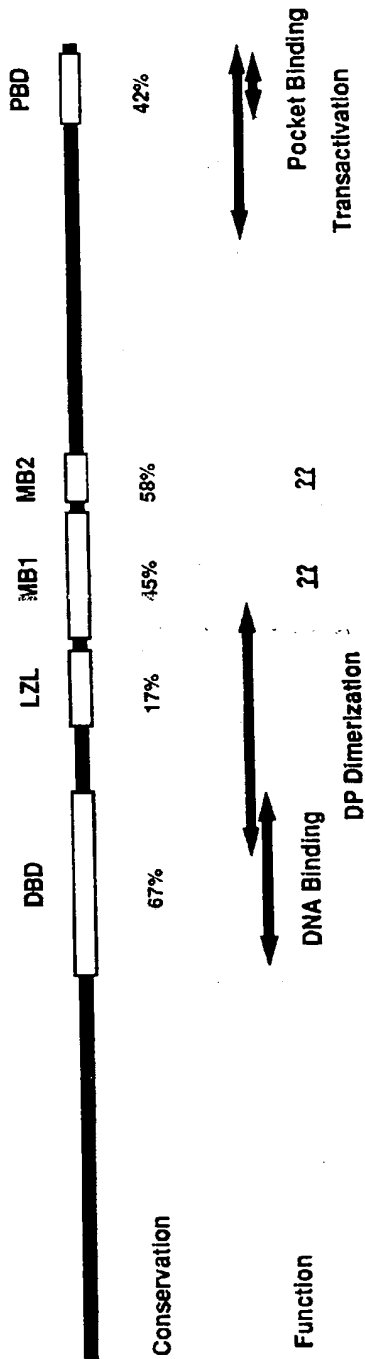
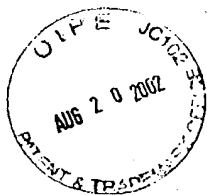
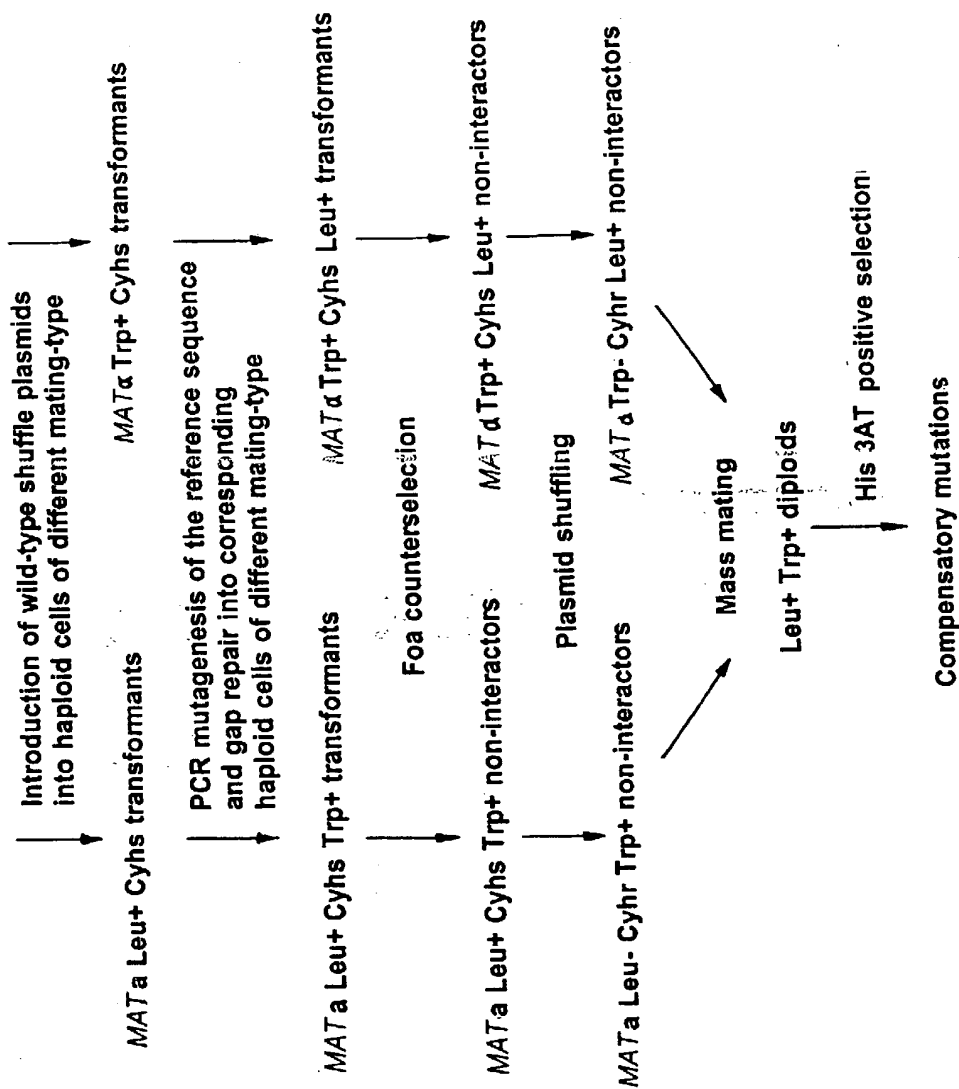


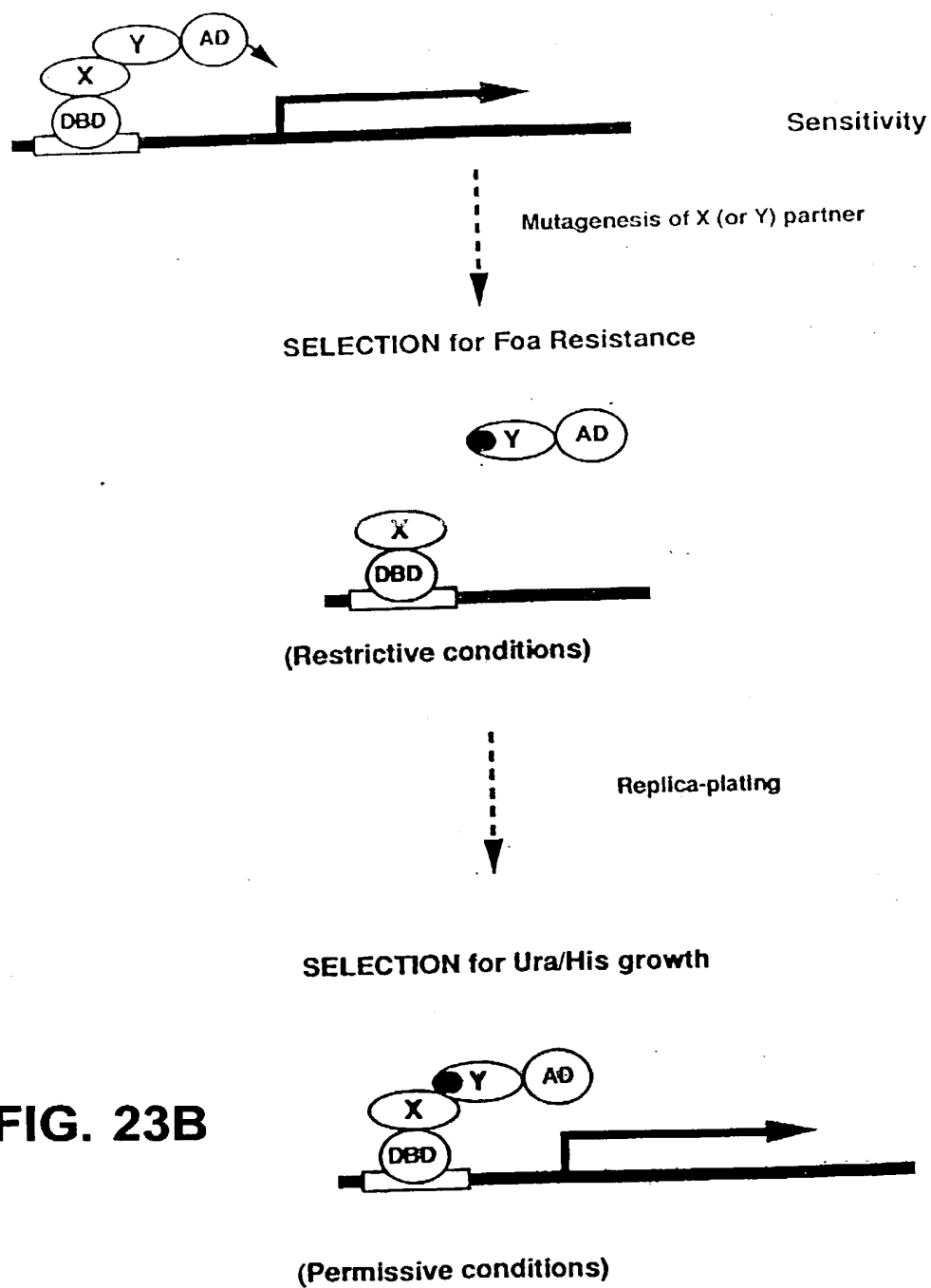
FIG. 22



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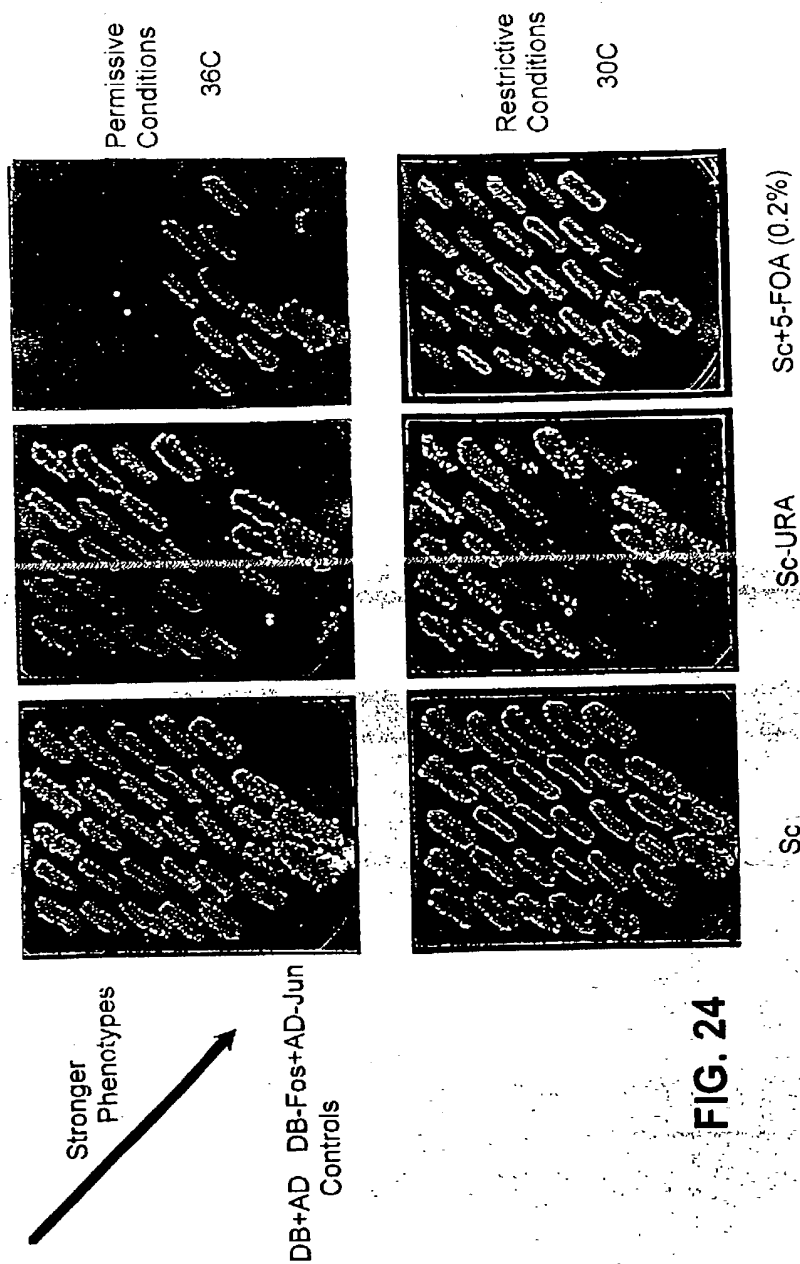
**FIG. 23A**

**FIG. 23B**



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CLONE AND EXPRESS  
DB/Ag FUSIONIMMUNIZE  
ANIMALPERIPHERAL  
B CELLS

1. PCR Light and Heavy Chain  
Variable regions
2. GAP REPAIR into  
Ab Expression Vectors

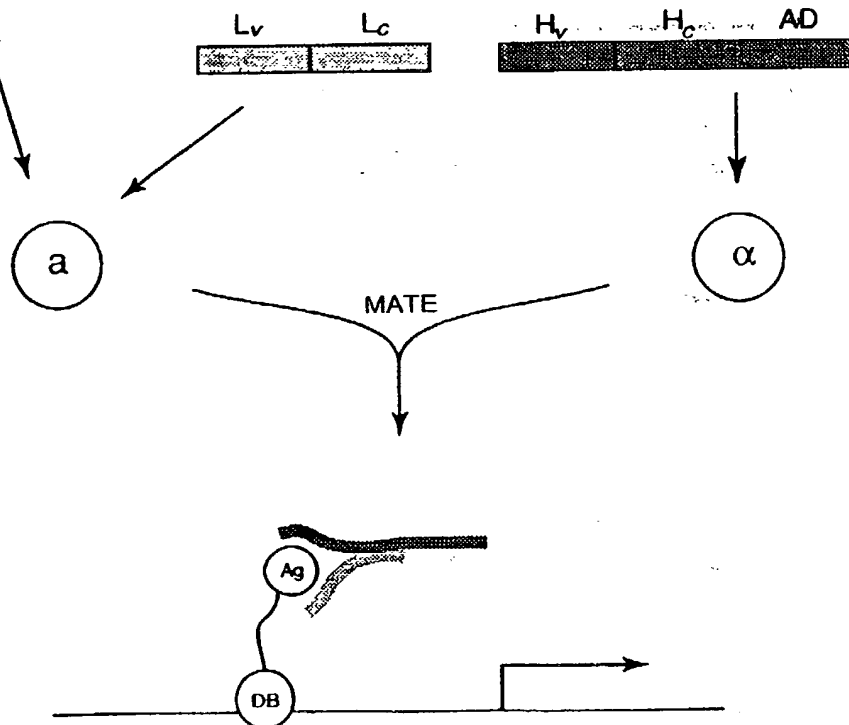


FIG. 25